**Statement of**

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I am a demographer with Claritas Inc., a company that provides demographic information products to a wide range business clients. For 24 years, I have produced population estimates for business applications, and have been a regular user of the Census Bureau's population estimates. I am pleased to provide my perspectives on the Census Bureau's estimates, and their importance to the business sector.

Businesses are heavy users of demographic information because the demand for products and services is strongly related to the size and characteristics of an area's population. Because businesses need to assess demand for specific products in specific areas, they need demographic estimates for small geographic units.

In response to this demand, private sector suppliers produce annual estimates for small areas such as census tracts and block groups. Tracts and block groups are neighborhood level geographic units for which census statistics are reported. Nationwide, there are about 65,000 census tracts, subdivided into approximately 208,000 block groups. The Census Bureau does not estimate population for these small statistical geographies, and some demographers regard such estimates as beyond the state of the art of applied demography.

However, businesses derive value from these estimates because most aggregate them to larger areas relevant to specific business applications – such as the trade area for a new store, ZIP Codes, or the area served by a telecommunications provider. Error can be high for individual block group estimates, but accuracy improves significantly as they are combined to form larger areas. Mean error for individual block group estimates is in the 15 percent range, but for aggregate areas, error often drops to well below five percent.

The reduction of error through aggregation depends on the accuracy of estimates for larger areas such as cities and counties. And accuracy at these levels depends on the accuracy of the Census Bureau estimates. The private suppliers focus their efforts on small area estimates, but rely on Census Bureau estimates for counties, cities and towns – based on data resources not available outside the government.

By forcing their small area estimates to sum to Census-based "control totals," the private suppliers ensure that their positive and negative estimation errors offset to totals consistent with the estimates published by the Census Bureau. Thus, the private sector estimates become more accurate with aggregation to the extent that the Census Bureau estimates are accurate.

Businesses have a sizable stake in the accuracy of population estimates, as they contribute to applications including retail site location, real estate development, and media audience measurement. Estimation error has potentially very real consequences for these businesses and the communities they serve. The consequences vary widely, and are difficult to quantify, but can relate to whether a community is selected for a business location, and the success or failure of a new business location. Major business decisions are not usually based solely on population size, but population estimates are a critical factor, and large numbers of dollars and jobs are at stake.

Businesses also are becoming major users of information from the new American Community Survey (ACS). And with ACS data being weighted by the Census Bureau's county population estimates, the accuracy of these estimates is becoming of even greater importance to business users.

Revisions to Census Bureau population estimates are a reminder that estimates involve error and uncertainty. Some recent revisions have been large, and raise questions about the Census Bureau's estimates program. All population estimates programs have room for improvement, but there is a sense among many users that the Census Bureau has exhausted the potential of its current methods, and that the program needs to be moved forward.

The Census Bureau is aware of the present limitations, and held a conference in July – soliciting suggestions from external experts on how the estimates program could be improved. There was agreement that the Census Bureau's approach may be overly constrained by a one-size-fits-all approach, and recommendations urged greater flexibility in the use of new data resources, different methods for different areas, and collaboration with local demographers. The Census Bureau is receptive to such suggestions, and motivated to make improvements.

It was noted at the conference that the Census Bureau already transcends these constraints on an ad hoc basis in the estimates challenge program. Local governments can challenge the Census Bureau population estimate for their area, and if they can document an alternative population size, the Census Bureau will issue a revised population estimate for that government unit.

But while these revisions likely improve the accuracy of the estimates for the government units in question, one cannot judge the Census Bureau's estimates program based on a few high profile revisions. In fact, some aspects of the challenge and revision process illustrate why the Census Bureau needs to be careful in improving its estimates program.

Most users of the Census Bureau's population estimates focus on only a few areas. For example, state demographers focus on the counties in their state, and local governments focus on a single estimate. If they dispute that one number, the estimates program is a problem in their view. The present system of challenges and revisions responds to this perspective, but can give the impression of an estimates program in serious trouble.

In my work we use the Census Bureau estimates for all counties, cities and towns, and we use them every year. From this broader perspective, the Census Bureau's population estimates have served us very well. The Census Bureau has its own measures of estimation accuracy, but we confirm this value through evaluations of our own county population estimates, which are based on those from the Census Bureau (typically, we project the Census Bureau estimates ahead another year or two for our products). For example, the county population estimates we produced for in 1990 had a mean error of 4.1 percent relative to the 1990 census counts. By 2000, mean error was down to 3.4 percent. I would love to take credit for this improvement, but it traces to the Census Bureau estimates from which our numbers were produced. So if anything, the overall accuracy of the Census Bureau's population estimates has improved over time.

Still, problem estimates point to the need for further improvement, and the question is how best to achieve it. Businesses tend to have the broad perspective, and thus an interest in improvements beyond those achieved in response to challenges initiated by a few local governments.

When the Census Bureau revises an estimate in response to a challenge, the focus is narrow, as a government need only demonstrate that its population is higher than the original estimate. They need not demonstrate that the estimates for other areas should be lower. And governments do not challenge to get a lower population estimate. Of 89 post-2000 revisions currently listed on the Census Bureau's website, all 89 are an increase over the original estimate. So, while local data and expertise are a basis for improving estimation accuracy, the Census Bureau cannot simply defer to state and local input. Demographers have long suspected that if all government units produced their own estimates, the implied total U.S. population would be unrealistically high – perhaps by a large margin.

Because the Census Bureau estimates all counties, cities and towns nationwide, the estimates must sum to a realistic total for U.S. population. When first issued, revised estimates are independent of all other estimates, including the national population total. But the national population estimate is fixed, so ultimately, the population estimate for one area cannot be increased without decreasing the estimate for other areas.

This zero sum requirement reflects the need for fairness in using estimates to distribute funds, and is consistent with the objective of producing the most accurate estimates possible – across all areas. But the zero sum requirement poses a challenge, as the Census Bureau needs to tap the strengths of new data resources while guarding against adding population to some areas at the expense of unsubstantiated population loss in

others. Proposals for the use of the Master Address File and housing unit methods are sensitive to this requirement, but these options have their own issues, and the Census Bureau will want to consider them along with other options.

To conclude, the Census Bureau is up to the challenge of improving its population estimates, and appears ready to take steps in that direction. But users need to maintain realistic expectations. Even in a best case scenario, with notable improvements to accuracy, the Census Bureau's population estimates will still be estimates, and subject to error. Improvements may reduce the frequency of challenges and the magnitude of revisions, but some local governments will still dispute their population estimates, and we can expect continued pressure for revisions. This is the imperfect nature of population estimates. And from the broader perspective, businesses will continue to benefit from the significant value that these imperfect estimates provide.

Thank you, and I look forward to your questions.